



PLANTING PALMS FOR THE ENDANGERED LEAR'S MACAW

Work has already begun on our 'Palm for a Parrot' project to enrich the population of the Licuri palm on which Lear's Macaw is critically dependent. We have been fortunate in having the help of leading palm expert Dr. Alan W. Meerow, Associate Professor, University of Florida.

Here is his report.

palms were observed, suggesting that regeneration of the palm in disturbed areas is minimal.

For the next two days, two neighbouring fazendas were visited. We excavated around the root systems of mature licuris to observe their conditions and assessed the soil types on the various sites. The three target fazendas showed remarkable variation in soil profile. Unfortunately, the worst soil type

(a compacted clay) seems characteristic of the Fazenda California, where the most ironclad cooperative arrangement seems to have been forged by Charles Munn. Another of the fazendas had a sandy loam soil with which it will be much easier to work. The third fazenda had a soil intermediate between these two extremes.

Cezar, manager of Fazenda California informed us that he

witnessed a large scale transplantation of licuris in central Bahia and the palms appeared to show a very high survival rate. This is in line with our experiences with other *Syagrus* spp. at the University of Florida, but it was very encouraging to hear this about *S. coronata* specifically.

On the third day we attempted to enter the property of a local businessman where the macaws are known to nest but encountered

I. Itinerary and results of the fact-finding mission.

I arrived in Salvador, Bahia on June 22. The following morning, Dr. Charles Munn, Dr. Pedro C. Lima, Danilo Viana Lima, and myself departed for the Fazenda California north of Euclides da Cunha, Bahia where David Johnston and Jaelson (a student working with Pedro Lima) were already encamped. The vegetation in the area is caatinga, a low, dry xeric scrub within which the licuri palm occurs as an emergent canopy species with varying frequency. Licuris are frequently left standing after the tree and shrub vegetation is cleared, as the leaves are harvested for cattle fodder during the long dry season. The results of this practice were quite evident; the continual loss of leaves causes eventual decline and even death of the palm (perhaps due to secondary invasion from *Rhynchophorus* weevils), and depreciation of flowering and fruit set. Where goats are allowed to range, very few seedling and young



Dr. Alan Meerow in Euclides da Cunha, Bahia, with a prime example of Licuri palm seed.

“psittacine
(sit'ã sîn) Belonging
or allied to the
parrots; parrot-like”



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The Lear's Macaw recovery team: Charlie Munn, Pedro Lima, Alan Meerow, Danilo Lima.

some problems with access. The farm staff did allow us to camp next to the property and we departed the following day. A population of licuri 7km north of Euclides da Cunha was encountered that has been spared trimming and/or foraging by goats. Due to the very high soil quality in this area, the palms are vigorous and fruiting abundantly. The seeds are 33% larger than more depauperate specimens on the target fazendas where soil conditions are not as good. We made preliminary arrangements to purchase sufficient seed crops from these trees for use in the project. Mr Danilo V. Lima and I, accompanied by David Johnston, proceeded to Mr. Lima's farm in Ituberá to determine the best sites for developing a nursery for licuri palm production (see next section).

II. Recommendations

A. I previously recommended to Dr. Charles Munn that Danilo Viana Lima, agronomic engineer and pupunha palm (*Bactris gasipaes*) farmer of my acquaintance be retained as the chief agronomist of the project. Dr. Munn met Mr D. V. Lima (who accompanied us on our visits to the sites) and he enthusiastically agreed that he would be superbly qualified. Mr Lima has agreed to contract to oversee the project. Mr. Lima and I will be in close communication throughout the duration of the project, and he and I agreed that I should make 2 additional trips to Brazil at critical times during the project.

B. On the basis of my visits to several sites in Bahia state, I recommend that two approaches be taken to increasing the supply of licuri, given the obvious low

levels of regeneration taking place on the fazendas where the Lear's forages:

1. Twenty-thirty thousand *Syagrus coronata* will be nursery grown for eventual transplant to 3 cooperating fazendas on which the Lear's macaw is known to forage for palm seeds already. Given irregularities in germination of this species, 50,000 seeds will be planted. A population of licuris 7km north of Euclides da Cunha that have been spared trimming and/or foraging by goats will be the source of all seed. I do not recommend that seed sources from more mesic, coastal populations be utilized due to possible ecotypic differences in the germplasm that would place progeny of these latter at a potential disadvantage under caatinga conditions.

Germination beds will be constructed from wood approximately 20cm deep and 10-15cm off the ground at Mr. D. V. Lima's farm. A 1:1 (volume:volume) mix of either sand and some organic material of local supply (perhaps composted bark or sawdust) or perlite (pumice) and the organic material will be used as the germination medium. Half the seeds will be germinated in full sun in the open, the other half in partial shade (approximately 50%). A percentage of the seeds may also be germinated in plastic bags of moist organic material. If excess rainfall is deemed problematic for the former, a simple polyethylene roofed structure will be constructed over the beds. As the seeds germinate they will be transplanted to plastic "citrapots", liner containers roughly 10cm square and 40cm deep designed

for deep-rooting.

The potting medium for germinated seedlings should be roughly a 1:1:1 (by volume) mix of coarse sand, coarse organic (bark or some other material of similar particle size) and topsoil (a 50% organic soil), amended per cubic meter with 3.5-4kg of dolomitic limestone and 3-3.5kg minor element blend. Supplementary fertilization will be provided with liquid or granular fertilizers beginning 6 weeks after transplantation to the citrapots.

I am conducting some germination studies at the University of Florida to determine the utility of acid scarification (thinning of bony endocarp) of licuri palm seeds to speed germination. I am also looking at whether the ecotypic differences in seed and plant size and vigor in *S. coronata* that we observed is expressed in the rate of germination and seedling growth.

Seedlings will be set into field sites directly from the citrapots between 1 and 2 years after germination. The sites for seedling transplant will need to be fenced to exclude livestock. Areas into which seedlings will be planted should be cleared of vegetation and disked to break up compacted topsoil. Two planting designs will be trialed: 1) Groups of 3 seedlings each 1/3 meter apart and each group 2 meters apart, and 2) single seedlings planted 1.3 meters on centre (OC). In design 1, the groups will be thinned to one plant if that does not occur naturally during the first year. In design 2, thinning can be performed after 3 years or else the plants can be allowed to develop aboveground stems (4-5 years) and each alternate plant can then be

transplanted to another site. Planting will coincide with the onset of the period of heaviest rainfall, but irrigation by water tank truck should be available in case drought conditions are experienced. Irrigation will not be supplied after the first 4-6 months of establishment. Granular fertilizer will be applied to the seedlings no less than 2 months after transplanting and every four months thereafter. Continuation of the fertilization program after 2 years will be assessed at the end of that time period. The decision to continue will be at least partially based on the response of established licuris on site to supplementary fertilizer (see below).

Weed growth will have to be controlled in the seedling field sites. This will probably be most inexpensively done with manual labour.

2. No fewer than 100, and up to several hundred reproductive age licuris will be transplanted from a site far west of the target fazendas (we were not able to visit this site during my stay). The reason for this, is the extreme slow rate of growth of seedling licuri, which should not be expected to flower and fruit before 12-15 years of age. All indications are that

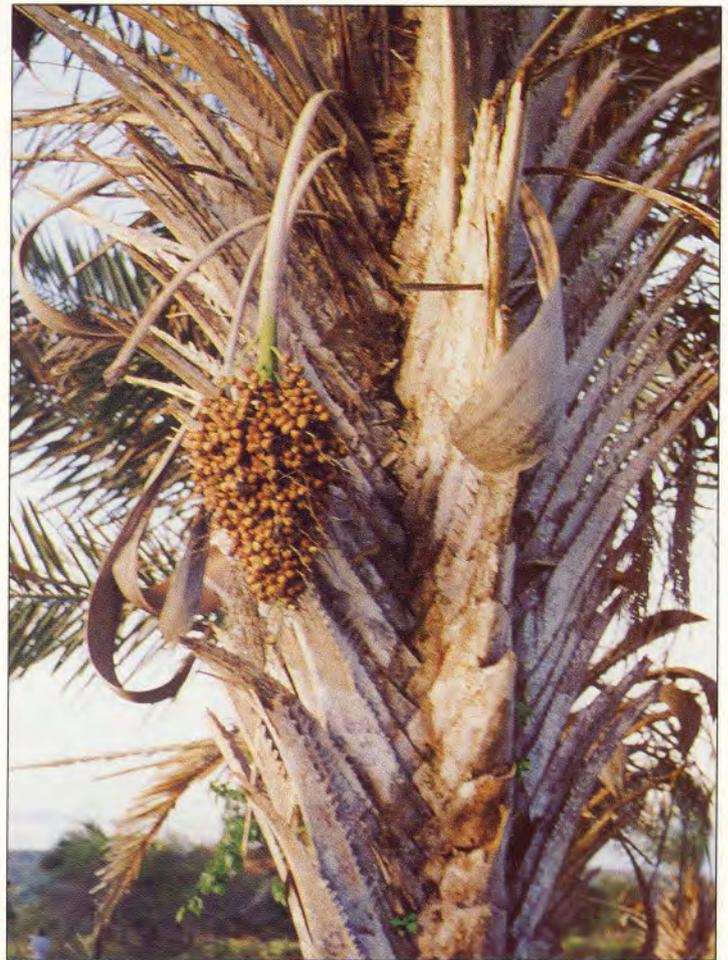
S. coronata transplants well, given reasonable care in the process. All of my experience with transplanting palms indicates that transplanting from field situations before trunk development is usually disastrous. Specimens from transplant should thus have a minimum of 0.3 meters of clear trunk (free of leaf bases), but overall height should not exceed 2.4m if possible to maximize the

number of trees that can be loaded on a transport vehicle at one time. Transplanting will take place at the outset of the period of expected maximum precipitation at the target sites (January).

Heavy equipment that will be required for transplanting includes a tractor, tree spade attachment, disc cultivator, tree augur and water tank truck (this will also be required for seedling establishment). Danilo V. Lima and Pedro C. Lima will attempt to garner donations of this equipment from the manufacturers in Brazil to whom substantial public relations benefits would result. The equipment would be stored at Fazenda California, the most vigorously cooperative of the target fazendas.

A minimum root ball of 15-20cm from the trunk will be dug with each palm. Burlap will be kept on hand if it is deemed advisable by Mr. Lima and /or myself to wrap the rootballs after digging. As the palms are dug, 1/2 or 2/3 of the leaves will be removed from the canopy to lessen the transpirational loss of water and consequent stress. It may be advisable to COMPLETELY remove the leaves from a 25-50% of the palms to determine if this results in less mortality and faster establishment. Leaves remaining on the palms should be tied up around the bud area (spear leaf) with soft twine to protect the bud and also to make the palms easier to handle and load onto the transport vehicle. This twine should be cut away no more than 1 week after installation.

A tree augur may be necessary to prepare planting holes for the



This is what the Lear's Macaw is searching for - a Licuri palm with a fine frutescence.

transplanted palms. The danger of using this type of equipment on clay soils is that the augur may "polish" the sides of the hole, destroying the soil structure and rendering the sides impermeable to water. As the planting hole need only be large enough to accommodate the root ball,

manual digging of the holes should be utilized where penetration of the soil does not present a problem.

The palms should not be planted any deeper than they were previously and larger specimens may require support for the first year after installation.

Botanists with the national university in Feira de Santana must be contacted to determine if the harvesting of mature licuris on the chosen site might threaten any rare, endemic species of plant.

C. Mr D. V. Lima and I also recommend that a program of fertilization begin for licuris on the target fazendas. This will consist of applications of a total nutrition granular blend that he and I will design for use as well with the transplanted palms (including the seedlings). Application 3-4 times per year is recommended.

D. I strongly encourage the Trust to approve and fund a visit by Mr D. V. Lima to the Miami, FL area so that he can observe specimen size palms being dug from field nurseries and landscape sites in advance of undertaking this operation with the licuri palms.



A good plantation of Licuri. It takes 12 to 15 years for these palms to fruit.

A PROFILE OF EDUARDO NYCANDER VON MASSENBACH

By Charles Munn

In August 1987, an inexperienced but enthusiastic 25 year-old architecture student from Lima named Eduardo Nycander von Massenbach hitchhiked on a research boat all the way to my study site encampment in the Amazon rainforest of Peru's Manu National Park. At the camp I led a team of Peruvian biologists in researching the biology of large macaws for the Wildlife Conservation Society (WCS, formerly New York Zoological Society). Surprisingly, it was the first detailed wild study of these handsome birds, which trappers have eliminated from many areas of intact forest in Latin America.

Equipped with a camera body and a couple of small lenses, Nycander attempted to photograph every creature and jungle scene, learning as he went. His energy and dedication convinced us to invite him to photograph our project during the peak of nesting activity in early 1988.

Nycander attacked the challenge of nest photography

with a vengeance. He erected 60 foot-high scaffolding towers in a soggy, mosquito-infested palm swamp to photograph nests of Blue-and-Yellow and Red-bellied Macaws. His unrelenting drive to get the best results under extremely difficult field conditions convinced us that Nycander had tremendous untapped potential in macaw research and conservation. I hired him to work from September through November 1988 to photograph the individually-recognizable facial line patterns of each of the hundreds of Red-and-Green Macaws that come daily to eat clay at the two large clay licks in the Manu region. He not only took an excellent face photo of these birds, but he also went far beyond the call of duty by devoting extra days to building better-concealed, closer hides to permit art photography of the more than 1,000 macaws and parrots that visit these licks on most clear days.

Nycander devoted most of 1989 to architectural thesis research in

Manu studying the traditional building techniques and designs of the indigenous Machiguenga Indians. This research later served him well by providing him with ideas for construction in Tambopata, Peru of traditional Indian houses and lodges to be used by macaw researchers and visiting ecotourists.

In September 1989 Nycander travelled with the fourth WCS expedition (the first was in April 1985) to visit the huge macaw and parrot clay lick on the middle Tambopata River near the Bolivian border in southeastern Peru. This trip changed his life, setting him off on a hell-bent-for-leather course of macaw conservation and research in the Peru-Bolivia border region. He decided to team up with two other Peruvian conservationists, both of whom previously had assisted WCS macaw projects in Manu, to form a tourism company to protect this huge clay lick, which is the largest macaw and parrot lick in the world. Large flocks of five species

of macaws and many other parrot species visit this lick in what is surely one of the world's noisiest and most colourful wildlife spectacles.

Since early 1990, Nycander, his team of WCS field biologists and his Peruvian ecotourism partners have carried out research on nearly 100 macaw nests near this lick, which is the site of Nycander's Tambopata Research Center. The Center is a 100-foot-long raised platform covered by a traditional thatched roof and equipped with mosquito-net-shrouded beds. The Center serves both as a macaw research station and as a rustic but comfortable tour lodge.

When Nycander and his colleagues found that most of the second nestlings died in nests of large macaws, he and his team started experimenting with rescuing and handraising these second young and soft-releasing them into the wild flocks of hundreds of macaws near the Center and clay lick. He also built and hung near the Center several different designs of nest boxes, the most successful and durable of which have been 20 seven-foot-long sections of heavy, 14-inch-diameter PVC pipes.

At this point, not only is the huge lick at the Center completely protected and easy to view (meat hunters used to shoot these birds there), but Nycander and his team have successfully raised and released 20 large macaws of three species. Thanks to the PVC nest pipes, the number of successful Scarlet Macaw nests within a 15-minute walk of the station recently jumped from one to nine. In 1993 the BBC filmed the clouds of wild and tame, handraised macaws that fly in the forests and visit the clay lick near the Center. A cover story on macaws that I have authored for an upcoming National Geographic Magazine will highlight the work of Nycander and his research team.

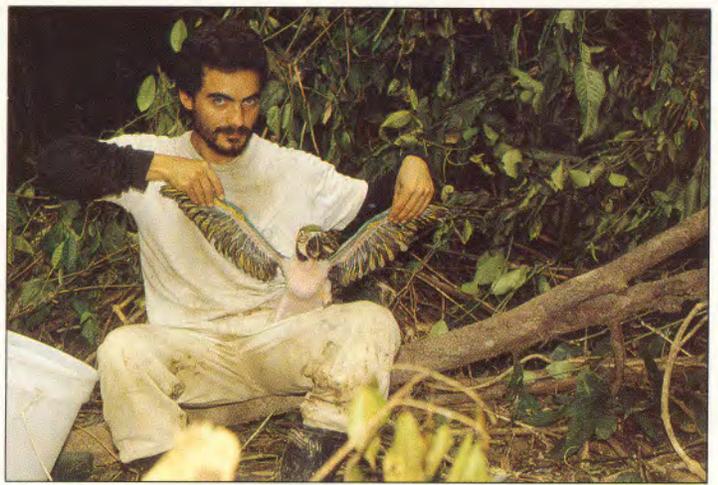
In 1993 Nycander started field training courses in Tambopata for biology students from one of Peru's leading secondary schools, the English-speaking Markham School of Lima. His work has been featured on nationwide television in Peru. Finally, Nycander is a key figure now both in Peru and in Bolivia working to push through the creation of huge new national parks that will protect spectacularly viewable flocks of large macaws.



Eduardo joined Charlie Munn in Bolivia to get this stunning shot of a family of Blue throated Macaws.



Eduardo removes a Scarlet Macaw nestling for routine measurement.



This young Blue and Gold Macaw is being hand-reared, and will eventually re-join the wild flock.

In sum, Nycander has shown that macaws add up to more than just the sum of their colourful feathers. They actually are the most beautiful, tractable and versatile ambassadors for the endangered rainforests of Central and South America. Macaws now are successful metaphors for ecosystem conservation in the world's most intact and biologically diverse habitats - the pristine forests and savannahs of

the Peru-Bolivia border region. All macaw lovers should try to visit Nycander's project sites in Peru and Bolivia for an unforgettable and unique wildlife experience.

Editors Note: If any reader would like to consider visiting Tambopata or Manu forest reserves in Peru, they could contact Eduardo's company:-Rainforest Expeditions, Galeon 120, Lima 41, Peru. Fax: +51.14.472497. Phone: +51.14.389325.

NEW TEAM TACKLES WORLD'S RAREST PARROT

By Paula Harris

Efforts to save the Echo Parakeet have intensified in the aviary and in the wild with the appointment of two senior biologists to the project.

Kirsty Swinnerton did not have to travel far to take up her new post as manager of the Mauritius government's aviaries at Black River. She simply descended from the campsite in the Macchabe Forest where, since 1988, she has led the field team reintroducing captive bred pink pigeons back into the wild, as well as monitoring and managing the remaining wild population of the aptly named Pigeon Wood. When Kirsty arrived in Mauritius from the U.K., the wild population of pink pigeons numbered less than 20 and the first attempt to reintroduce pink pigeons into the island's Royal Botanical Gardens had been abandoned when the pigeons were killed by predators ranging from mynahs to young boys with slingshots.

Captive populations in Black River and at the Jersey Wildlife Preservation Trust were well established, however, so Kirsty

began new releases in a remote location and launched a programme of predator poisoning and supplemental feeding for the free-living birds. By the spring of 1993 the population had increased threefold, over 50 free-living captive bred pigeons had been returned to the wild and had themselves bred a new generation of wild pigeons - at least 20 at the last count! Kirsty has also had years of hands on aviculture experience, first at Twycross Zoo and later coaxing captive pigeons to breed and rear their own chicks in Black River. Now she will manage breeding programmes for the pigeon, Mauritius kestrel, Rodrigues fruit bat and the Echo Parakeet.

Kirsty takes over the running of the aviaries from Dr. Leslie Smart who spent a year working on the project. Leslie did detailed studies on the nutrition of the parakeets with Monica Wroebe, a Canadian Zoo Biologist. The work of Leslie and Monica has left some sound management techniques which Kirsty can now develop.



Kirsty Swinnerton meets a friendly cockatoo at Paradise Park.

Echos Breed in Captivity for the First Time

After a brief autumn holiday (including a visit to World Parrot Trust Headquarters at Paradise Park) Kirsty returned to Mauritius to take up her new post and found herself instantly confronted with a challenge. Only three of seven captive Echo Parakeets survived when disease swept through the Black River aviaries last spring, but two birds were an established pair just approaching breeding age. Recently they laid two eggs. Both proved fertile and both hatched, but one bird was obviously sickly and died within days. Watching the adult birds closely, Kirsty could see that they were parenting poorly and the surviving chick was getting little to eat. Hoping to encourage the parents to rear the chick, but anxious to ensure it received adequate food, Kirsty spent several days and nights removing the chick for supplemental feeds and returning it to the nest. Sadly the adult parents did not improve and the chick became very feeble.

In the past, Echo eggs and chicks taken from the wild have been successfully reared by foster Indian Ring-necked parakeets. When World Parrot Trust veterinarian Andrew Greenwood visited the aviaries following the Echo deaths in April, his test results showed Gram negative bacteria and polyomavirus in some of the Ring-neck parakeets. University of Georgia lab results on samples taken from the dead Echos suggest two birds were negative for disease, but two tests were inconclusive and will be run again.

Kirsty faced a terrible dilemma: disease in the Ring-necked birds may be contributing to the Echo mortalities, so it would be unwise to give the newly hatched Echo to the Ring-necked parakeets for fostering, but fostering may be the only chance to keep the chick alive. Late night decisions were taken with Andrew on the telephone. Since the Echo parents themselves had been reared by

Ring-necked parakeets, the diseases (if any) may already have been transmitted to the chick. Little further harm could be done by foster parents. The Echo chick is doing well under the Ring-necked fosters and Kirsty hopes removal of the chick may mean the adults will cycle again.

World Parrot Trust Funds Field Biologist

The second new member of the Echo Parakeet team travelled from New Zealand to manage the wild population as the World Parrot Trust's field biologist. We asked Tim Lovegrove for his first impressions of the project:

From Kakapo to Echos

In mid September I joined the team on Mauritius where I am running the field programme to conserve the Echo Parakeet. During the past year I assisted with the Kakapo conservation project on Little Barrier Island in New Zealand. My previous experience in endangered species work has included island translocations of endemic New Zealand passerines, a PhD study of the effects of introduced predators (especially rats) on the saddleback (an endemic New Zealand wattlebird now confined to predator-free islands); and surveys of threatened forest birds on several islands in the South-west Pacific.

In contrast with Kakapo, in which the 50-odd surviving birds have been translocated to safe island sanctuaries (where the only potential predator is the small polynesian rat), the Echo has to be managed in the degraded forests of mainland Mauritius, where the birds face a suite of potential predators. Unfortunately, at present Mauritius has no suitable offshore islands to which Echos could be translocated. Mainland management involves the use of various lifeline conservation measures such as predator control, habitat enhancement (e.g. provision of artificial nest sites, as well as fixing old ones which have



Andrew Greenwood and Carl Jones in the aviaries on Mauritius.

fallen into disrepair), supplemental feeding and where necessary, brood manipulation and captive rearing.

The mere fact that the Echo has managed to survive for so long on Mauritius in spite of the degraded habitat and predators such as ship rats, monkeys, mongooses and feral cats suggests that it is something of a tenacious survivor. It may be that manipulation of just one or two factors could be sufficient to tip the balance in favour of the wild Echos.

Although the existing forest is overrun with woody exotics, I believe there is sufficient habitat for many more birds than currently exist (15-20 according to Kevin Duffy, my predecessor's most recent estimate). Although there are fewer Echos than Kakapo, I think that the potential for recovery is much greater, mainly because they can breed every year.

Clearly it is important to ensure that every nesting attempt in the wild is successful. Ship rats are the prime culprits as nest predators, and an all-out effort is currently underway to reduce rat numbers (by poisoning and trapping) in the known territories of nesting pairs. Anti-coagulant poison has been laid in special bait stations (designed to reduce take by non-target species), for up to a month before the birds are expected to lay. The poison is laid on 50 x 25 metre grids placed out to 100 metres on

all sides of the nest trees.

At present three pairs of Echos are being closely managed, but there are two other pairs in the same part of Macchabe Forest. The locations of their nest trees are unknown at present. We are endeavouring to locate these so that predator control can be initiated. However, locating Echo nests is not easy, because the birds are extremely secretive near their nest. The birds can be very silent and they do not flush easily. Thus the birds and their nests are very easily overlooked. Much perseverance, and perhaps a good measure of luck is needed to locate them.

For the next five months I will be assisted in the work by a Danish biology student, Line Wadum, who will be studying aspects of the conservation work (e.g. predator control, nest site enhancement and manipulations), and breeding ecology for her thesis. When Line returns home, she and her partner Michael Iversen will continue to develop a new branch of the World Parrot Trust in Denmark.

The Echo parakeet project is financed and managed by the Jersey Wildlife Preservation Trust in co-operation with the Conservation Unit of the Mauritius Government. Generous funding is received from the Mauritius Wildlife Fund and the World Parrot Trust.



Looks a bit like a dog's breakfast, but this is actually the rarest parrot in the world.

FIRM REACTION TO OUR MAY '93 ARTICLE 'THE WORLD OF PARROTS'

Michael Reynolds writes:-

It's owning up time, and I confess that I wrote 'The World of Parrots' piece which appeared in the May '93 issue of PsittaScene. It was intended to be a bit provocative, but so far the only reader who has made any comment is Gene Fellner, and I thank him for his contribution.

His alternative review of the varied points of view of participants in the parrot imbroglia is very illuminating. He refers, correctly, to inadequacies in the UK and appears to be satisfied with the situation in California. He then gets down to business with the statement that customers are queuing up to pay \$8000 for Hyacinth Macaws, and continues with several more financial references which perhaps indicate where his priorities lie.

Where I really part company with Mr. Fellner is when his parrot says he is glad his 'owners' have clipped his wings. How can it be right to deprive any animal of its prime means of locomotion? Presumably the reason for this is to transform an animal with normal instincts into a convenient item of merchandise.

Having re-read the original piece, I feel that the only part I would reconsider is the 'Major Parrot Collector'. There are quite a few different types who might come within this broad category, and I am personally aware of some who have genuine conservation goals and achievements. On that placatory note I must end, with an invitation to any member who may wish to discuss further the ethics of bird keeping, to write to the editor. 'PsittaScene' welcomes controversy.

Gene Fellner
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USA

To the Editor

I always share "PsittaScene" with other bird fanciers, hoping to enlist them in the cause, but I would be ashamed to let them see "The World of Parrots" (May '93). You will never convince the tens of millions of bird owners, breeders and dealers that the World Parrot Trust is a legitimate organization with worthy goals by printing such inflammatory, undignified jokes about us.

I can understand your feelings about parrots as pets, since the dismal state of aviculture in your home country is well covered in the American press: shops that refuse to sell hand-reared babies and magazines that ignore the conservation movement. Nonetheless, an international readership brings a responsibility to acknowledge that the situation is not uniformly bleak everywhere. Had the article reflected conditions in "green" California, the center of US aviculture, many of its points would be profoundly different:

1. The Aviculturist

I'm proud to have helped establish stable, genetically diverse breeding populations of so many threatened species. With Customers queuing up to pay \$8,000 for Hyacinth macaws, I can choose the best homes for the babies whose hand-rearing is my life's work. Our commercial success with such well-known, easily bred birds is financing the expansion of our efforts into rarer species like *Eclectus*, and many breeders sell these birds with the warning that we may need to buy them back one day to keep the breeding program viable. I've even heard rumours of a commercial breeding program for Palm cockatoos, which may save them from extinction that the poorly funded non-profit conservation groups may be unable to forestall.

2. The Man in the Street

You can't pick up a magazine or turn on the TV without getting new information about parrots. That African Grey convinced me of his rudimentary ability to use language; I hope some day humans can enrich our understanding of the world by communicating with other species. I'd love to have a parrot, but I see that they need more attention that I can give. It's horrifying the way those trappers capture wild birds; I'm glad their importation has been outlawed. I contribute all I can to the environmental organizations that are trying to save the rain forest.

3. The Veterinarian

The ban on trapped parrots, with the diseases they spread, is a godsend. The high price of domestically bred birds stops people from buying them as mere decorations; I rarely see birds suffering from sheer neglect any

more. Those who do buy them are motivated to protect their investments, leading to the proliferation of avian specialists and the development of low-fat foods and new vaccines.

4. Pet Owner

Our hand-reared Greenwing macaw thinks she's one of us. We only lock her in her cage at bed-time or when no one is home. The rest of the time she helps with the chores, watches TV and plays tug-of-war with the dog; she even goes to the beach with us and makes lots of new friends. She may outlive us and be depressed over the loss of her family, so if she can't adjust to new owners she will be put into a breeding program. Given the opportunity to mate, human-imprinted parrots quickly discover their natural instincts. They may never acquire the learned behaviours needed to be released into the rain forest (what rain forest?), but they love their new life as domestic breeders.

6. Major Parrot Collector

A few pop stars and gangsters may collect birds as a display of wealth, but I love all my birds as much as I loved my first budgie. The avian vet who checks their health every three months says they enjoy better living conditions than many zoos. I never buy birds from suspicious sources; they probably carry diseases that would infect my whole flock.

8. Bird Dealer

I've always preferred human-

imprinted birds because they sell themselves, in addition to bringing a higher price! I'm glad they prohibited the importation of wild birds, so less scrupulous pet shops can't undercut my prices with those sick, angry, noisy wild birds that give bird-lovers a bad reputation.

10. Parrot

My ancestors flew free, but hardly for enjoyment: they had to search for food and evade raptors. I'm glad my owners keep my wings clipped, because a reflex center in my spine works my wings involuntarily in an emergency, like a headless chicken. If I were startled while out of doors, I'd be a mile away and hopelessly lost before I could make those stupid muscles stop flapping. I'm a gregarious creature, but I'm also intelligent and curious, so I don't care whether the other members of my "flock" are birds or humans, as long as I get enough attention. I hope the philanthropic organizations will be able to reclaim our natural habitat, but it's nice to know that commercial breeders aren't letting our future depend on the success of this daunting struggle. Time marches on, and other intelligent animals like dogs and cats have adapted to a stimulating life among loving humans. I'm glad parrots have the same opportunity; I'm a city boy who wouldn't relish life in the wilderness any more than the rest of my family.



Two bright-eyed hand-reared Yellow-fronted Amazons, raised by Diana M. Holloway of Bryan, Ohio

PARADISE PARK BIRDS STOLEN: MAN JAILED FOR FOUR YEARS

Extract from newspaper report

Stolen birds later died

Three of the five exotic birds stolen from Paradise Park, Hayle, in January subsequently died, destroying two breeding pairs of an endangered species, the park's director, Mr. Michael Reynolds revealed last week.

Commenting after a 36-year-old

man had been convicted at Truro Crown Court of dishonestly handling the five birds, which were valued at £54,000, he said that it was the genetic value, not the monetary worth, of highly-endangered species that made such thefts so serious.

Describing the theft of rare

exotic birds as "big business" Mr. Reynolds estimated that about £500,000 worth were stolen throughout Britain last year. At least a dozen zoos, wildlife parks and sanctuaries had been hit.

The £54,000 haul from the 14-acre Paradise Park is believed to be the most valuable ever in the UK.

Mr. Reynolds said that birds were usually stolen to order and fetched only a fraction of their true value. He believes that behind the thefts is a "sub-culture of semi-criminal people" in the British bird scene.

"We hope that an appropriately severe custodial sentence will be imposed to send a message to bird thieves throughout the UK. They must be made to realise that the game is up, partly because of microchip implants which make birds easily identifiable, and partly because all honest people who love and keep birds are co-operating to defeat the thieves.

"Losses suffered by Paradise Park are shattering. Three of the birds stolen have died, destroying two breeding pairs of endangered



John Darker, convicted of dishonestly handling birds stolen from Paradise Park and jailed for four years.

species. The genetic material they carried is simply irreplaceable."

The jury was in retirement for hours before convicting John Darker of Bletchley, Milton Keynes of dishonestly handling the stolen pair of Palm cockatoos and Buffons macaws and a single Hyacinth macaw.

Prosecution counsel Mr. Richard Merrett said Darker, married with six children, had been unemployed for several years and had a number of previous convictions.

In 1984 he was jailed for four years for cruelty to a child, inflicting grievous bodily harm and two lesser assaults, and in 1989 he received a three-year prison sentence for kidnapping, robbery and other offences.

Darker was subsequently jailed for four years.



The female of this pair of Hyacinth Macaws died as a result of Darker's treatment. The male, who has been at Paradise Park for 23 years, is now without a mate.

AFRICAN GREY PARROTS IN CAMEROON

We recently heard from a correspondent in Cameroon, West Africa, about the plight of African Greys in that country. He wrote as follows:-

Dear World Parrot Trust,

I am currently living in Cameroon, and although not a parrot person I am curious about the status of the African grey parrot in Cameroon. I saw your ad in a borrowed BBC Wildlife magazine. My question is prompted by friends reporting a camp in the deep southeast of Cameroon with 4-500 newly captured grey parrots, followed by a personal sighting of another 300-400. My wife and I saw (and heard) them on the back of a utility truck travelling to Yaounde from Mbalmayo, in 13 coops.

They are not an endangered species but this seems excessive - hearing of 7-900 captive within

two weeks! Is there not at least a quota for their export from Cameroon? There is even a tourist envelope on sale in Cameroon showing what is obviously a holding pen of African greys (copy enclosed).

Yours faithfully
(Name withheld)

All of this gives a depressing picture of the prospects for this species in Cameroon, and this is supplemented by other recent reports of the extensive trade in Grey Parrots virtually throughout its range. The Environmental Investigation Agency have just reported, in their newsletter and in the BBC Wildlife Magazine, some very effective work they have carried out in tracing illegal exports of these birds from Ghana into Cote d'Ivoire, from where they are shipped worldwide.

The draft Parrot Action Plan

shows the population of the African Grey Parrot as around 500,000, but faced with the lethal combination of habitat destruction and massive trade, this estimated number could dwindle with great speed. The welfare concerns are also considerable, and other

reports in our 'International News' section show a part of what is going on.

The World Parrot Trust will do what it can to monitor this situation, and further reports will be made.



African Grey Parrots in a dealer's premises. This ghastly picture is actually used as a postcard for tourists to send home from Cameroon.

THE WORLD PARROT TRUST GALLERY OF ENDANGERED PARROTS

By Rosemary Low

No.3 Puerto Rican Parrot (*Amazona vittata*)

In the second draft of **Parrots, An Action Plan for their Conservation: 1993-1998**, produced this year by ICBP, 17 species are listed as being critically endangered. The plight of some of these species, such as Spix's Macaw, Imperial and Puerto Rican Amazons and Kakapo are very well known. Many, perhaps most, people will not be familiar with the names of some of the others on the list. The names of others are known but the fact that they are very seriously endangered is not. In the coming issues we will present a series of short items to highlight these birds.

In some respects the Puerto Rican Parrot is among the best known of critically endangered parrots. Its endangered status has been known since the 1950s when its population crashed. It has been intensively studied since the 1960s and millions of dollars - more than for any other endangered parrot species - have been spent on securing its survival. It is also the subject of a 384-page monograph, the most voluminous study of any endangered parrot to date. Despite all this, very few people interested in parrots have ever seen a Puerto Rican Parrot. Unlike some endangered species, they never featured in international trade and very few specimens appear to have left Puerto Rico, even in the 19th century when many species now rare were found in European zoos.

Clearly, trade played no part in their decline. So what did? Simply that recurring theme in the Caribbean and throughout the world, deforestation.

By 1912 less than 1% of virgin forest remained on the island. By 1940 the Luquillo forest was their last refuge. As the lowlands were deforested, the surviving parrots were pushed into the Luquillo mountains, a very wet area where they struggled to survive. By the 1960s it was realised that the population in the Luquillo forest could not increase without intervention because there were so few suitable nesting sites. In 1968 a forest-wide count revealed only 24 birds. By 1973 there were only five potential breeding pairs left, only three of which nested. In 1974 two pairs battled for possession of one nesting site and one member of each pair was killed in the fight. Those in charge of the programme to try to save this Amazon were by then patching up nests to prolong their life and deterring Pearly-eyed Thrashers, an aggressive Thrush-sized bird, from entering their nests by providing deep nest-boxes for the Thrashers, which were nest predators and nest competitors.

During the 1970s the first birds were taken for a captive breeding programme administered by the US Fish and Wildlife Service. This

programme encountered many difficulties and much criticism. I readily understood why when, in 1988, I saw how the Puerto Rican Parrots were kept inside a building in the Luquillo forest. Frankly, I found the conditions appalling. In that year, however, construction of outdoor suspended aviaries commenced and some of the birds were moved out of the building.

The right of US Fish and Wildlife to care for all the captive birds was challenged by certain officials in Puerto Rico, especially in view of the poor results of the breeding programme. They demanded to be allowed to have some of these birds and to set up their own breeding facility in the Rio Abajo forest in the north-west. Officials took me to the area, a most attractive one, and described how they planned to build a huge cage to release captive-bred birds into the surrounding forest when they had built up a secure captive population there. It was sad that the politics which raged for several years between the US and Puerto Rican officials set this programme back four years. Puerto Rican officials had hoped to commence in 1989 but it

was not until the spring of 1993 that 10 Puerto Rican Parrots were moved to the new facility in the Rio Abajo forest.

For some years the wild population has fluctuated annually but remains in the region of 30 birds. In the two captive locations, El Yunque (Luquillo) and Rio Abajo, the numbers total about 60 birds.

The Luquillo forest leaves a lot to be desired as the site of the only wild population of this species. Let us hope that the dream of Puerto Rican Parrots once again inhabiting the forests of Rio Abajo will one day become reality. Unusually, on this island, forest cover has increased in recent years. True, it is second growth but it could probably harbour its native parrot. This situation has come about because the US minimum wage which applies in Puerto Rico, makes it cheaper to import food from other islands, thus what used to be agricultural land is now reverting to forest!

The Puerto Rican Parrot was on the brink of extinction two decades ago. Now its future seems much brighter...



INTERNATIONAL NEWS ROUND-UP



NEW ASSOCIATION FORMED

On October 4th and 5th a meeting was held in Washington DC to establish a new association to work for the conservation of New World parrots. This development was sparked off by the decision of Birdlife International (formerly ICBP) to temporarily disband the Parrot Specialist Group of the IUCN Species Survival Commission. The purpose of this was to clear the air for a new start, after lengthy disagreements over policies within the Group, and over the Parrot Action Plan. Birdlife International report that although the Parrot Action Plan is supported by the majority of reviewers, publication is being delayed for the moment. The World Parrot Trust view is that these disagreements are not helpful for parrot conservation. The various influential bodies and talented individuals concerned with these wheelings and dealings should quickly reach a new consensus, and concentrate their energies on action in the field to help preserve parrot species. Try as it might, The World Parrot Trust can't do it all! Among those present at the Washington meeting were: Steve Beissinger of Yale University, Noel Snyder from Wildlife Preservation Trust International, Susan Lieberman and Rosemarie Gnam of US Fish & Wildlife Service, Don Bruning, Charlie Munn and Eduardo Nycander of the Wildlife Conservation Society, Ann Brice of University of California Davis, George Powell of RARE, Michael Hutchins of AAZPA, Enrique H. Bucher of Centro de Zoologia Aplicada, Argentina, Scott Derrickson of National Zoological Park Front Royal VA, Natasha Schischakin of Houston Zoo, Pam Osten of Baltimore Zoo, Robert S. Ridgely of the Academy of Natural Sciences, Philadelphia, and Mike Reynolds of World Parrot Trust. (Members should note that the fact we were invited to attend is a clear indication of the high regard in which the Trust is held internationally. From the practical point of view, the only reason I was able to attend was because 'British Airways Assisting Nature Conservation' provided the flight. No other airline does so much to help wildlife, so perhaps our members could please remember this when planning air travel.) Officers and Committee Chairmen were elected, and it is likely that this new body will be a significant influence on parrot conservation. With its representation from so many powerful and wealthy organisations it should be able to deploy substantial funding for parrot conservation tasks in the Americas. The World Parrot Trust

looks forward to fruitful cooperation with the new Association for Parrot Conservation, and will aim to put forward the concerns and capabilities of private psittacine aviculture to this formidable scientific grouping.

-The following announcement has been issued:-

ASSOCIATION FOR PARROT CONSERVATION

We wish to announce the formation of a conservation group, the Association for Parrot Conservation (APC). Concerned scientists met in Washington, D.C. this week to discuss the present status, threats, and conservation of the world's parrot populations.

As a result, it was decided that there was an urgent need to form an organization that provides a forum for parrot specialists to address critical research, management and conservation needs.

The mission of the organization is to promote the conservation of wild parrot populations and their habitat through scientific research, policy recommendations, and education. Initial emphasis will be placed on New World parrots. APC was founded to (1) scientifically evaluate conservation alternatives for maintaining wild populations and their habitats (e.g., field research and recovery, habitat preservation, ecosystem management, conservation education, ecotourism, captive breeding, reintroduction, sustainable use, and trade recommendations) as well as their application on a case by case basis to parrots, (2) educate scientists, decision-makers, and the public about the potentials and limitations of conservation alternatives, (3) create a communication network for those concerned with the conservation of wild parrot populations, and (4) facilitate local and regional conservation projects. The guiding principle of the association is to promote techniques and strategies that maximize the conservation of biological diversity.

An Executive Council of 17 members was elected. The President will be Dr. Enrique Bucher from Argentina who is well known for his studies of New World parrots and the sustainable use of biological resources. Dr. Bucher hopes that "by initiating and facilitating effective parrot conservation actions, the association will make a substantial contribution to conserve the parrots of the New World, of which 30% of the species are at present threatened."

For further information, please contact Dr. Rosemarie Gnam, Executive Director, at (703)739-9803.

JAPAN

Report from Yoshihiko Takaki
Saitama Children's Zoo
Saitama, Japan

In Japan almost all large parrots go to homes as pets, and there is no avicultural society target for breeding large parrots, although it is true that Japan is one of the major importing countries of parrots. However there are some avicultural societies targeted to finches, canaries, mutation Lovebirds and Budgerigars. Even now Japanese people believe it is very hard to breed any large species, so very few people try. Recently some captive bred chicks are imported from US and imports of wild caught parrots are decreasing as Airlines ban. So it will be increasingly important to breed large parrots in future. Therefore, I think it is useful to make Japanese leaflets of your Trust now. Even inside the zoo community in Japan, many parrots including endangered species such as Indonesian Cockatoos and Hyacinth Macaws have been dealt with only as display birds and not so many species have been bred. The large parrots bred successfully in Japanese zoos are Salmon crested Cockatoo, Lesser Sulphur crested Cockatoo, Eclectus Parrot, Blue and Yellow Macaw, Scarlet Macaw, Buffon's Macaw and Vinaceous Amazon. In such a situation, the staff of Saitama Children's zoo including me think we must inform the zoo community about the crisis of some large parrots and importance of breeding in captivity. We held a parrots symposium as a part of Japan Keepers Forum at Saitama Children's zoo on Sept. 13th 1993. The subjects of the symposium are following:

1. Parrots in Crisis.
2. Captive breeding program of Salmon-crested Cockatoo.
3. Successful breeding of Buffon's Macaw at Asa Zoological Park.
4. Large Parrots husbandry and breeding at Saitama Children's Zoo.

We had 110 participants and this was the first symposium of parrots in Japan.

In future we inform you about the situation of parrots at every opportunity. Again thank you very much to send us your leaflets.
Yours sincerely
Yoshihiko Takaki

SOUTH AFRICA

South Africa bans Imports of Red-and-blue Lories

Responding to a call by TRAFFIC's South African office for a ban on imports of the endangered Red-

and-blue Lory *Eos histrio*, on 27 July 1993, the Minister of Environment Affairs, Mr Japie van Wyk, announced his support for a prohibition on the importation of this species to South Africa. As reported in TRAFFIC Bulletin (13(3):93-96), investigations by TRAFFIC Southeast Asia uncovered a worrying trade in this bird, which, until a year ago, had been primarily threatened by the loss of habitat on the tiny groups of islands, Sangihe, Talaud and Nenusu, in Indonesia, where it occurs. During 1992 and early 1993, however, as many as 700 of the estimated 2000 birds believed to have remained in the wild, were found in trade: TRAFFIC estimates that as many as 400 to 500 of these parrots left the country for Singapore, with over 100 of these re-exported to South Africa. South Africa has a relatively large bird-keeping and breeding community, and with importation restrictions in place in Europe and the USA, was one of the most important remaining markets for the species. The Department of Environment Affairs will now request the South African provinces to use their nature conservation ordinances to enforce the ban, and will ask the CITES Secretariat to notify the Parties of this decision. Avizandum, South Africa's main avicultural magazine, has published an editorial in support of TRAFFIC's call for a ban, and urges careful management of the birds already in the country. David Newton, TRAFFIC's national representative in South Africa, has applauded Minister van Wyk's decision and the positive action taken by provincial nature conservation authorities. "Their rapid response to our call for a ban will help ensure that South Africa no longer provides an export market for these endangered parrots, and demonstrates the Government's growing commitment to conservation of wildlife species in trade" he said. TRAFFIC East/Southern Africa-South Africa, Press Release, 27 July 1993

Seizures & Prosecutions

There have been a number of confiscations of African Grey Parrots *Psittacus erithacus* (App. II) from one, or possibly more, Nigerian passengers transiting through European airports en route from Lagos to Istanbul, Turkey; in each of the cases reported the passenger is believed to be the same person travelling under false passports but this has not been confirmed (see also TRAFFIC Bulletin 13(3):108).

On 9 June 1993, 28 African Greys were found in the luggage of a Nigerian passenger; 13 specimens were dead on arrival. Customs officers did not record the identity of the passenger since he lacked a visa to visit or transit through the country and was consequently sent back to Nigeria.

On 14 June, 33 African Greys were seized from the luggage of a Nigerian passenger; 7 specimens were dead on arrival. In both cases, the birds had been tightly packed in small wire cages, their beaks taped. All surviving birds were placed in quarantine at Sofia Zoological Gardens. As of 8 July, only 26 specimens remain alive. TRAFFIC Europe

GERMANY

On 15 February 1993, following three years of enquiries, a nationwide search of parrot collections belonging to breeders and retailers was taken by Customs officers of Monchen-Gladbach and a total of 458 parrots were seized. The enquiry was prompted by the discovery, in 1989, that a person had illegally imported more than 2000 parrots from the Netherlands over the previous three years using false CITES certificates and sold the specimens to collectors and breeders, a business that had earned him an estimated DM150 000 (US\$87 500). Sentencing for these offences has yet to take place; the accused faces imprisonment for between three months and five years.

As a result of the raids, 36 lawsuits have been filed against the parrot owners and it is expected that those shops whose owners were involved will be closed. Amongst the seizures were four App I species; Hyacinth Macaw *Anodorhynchus hyacinthinus*, Goffin's Cockatoo *Cacactua goffini*, Salmon-crested Cockatoo *C. moluccensis*, Tucuman Amazon *Amazona tucumana*, and the following App II species: Red-tailed Cockatoo *Calyptrorhynchus magnificus*; Mealy Amazon *Amazona farinosa*; Red-shouldered Macaw *A. nobilis*; Yellow-crowned Amazon *A. ochrocephala*; White-headed Amazon *A. oratrix*; Yellow-collared Macaw *Ara auricollis*; Yellow-billed Lory *Lorius chlorocercus* and African Grey Parrot *Psittacus erithacus*. German Customs; German CITES Authorities

ITALY

On 30 June 1993, a Nigerian citizen was stopped as he was transiting through Rome airport, whilst travelling from Lagos to Istanbul. In two bags, and contained in 4 mesh cages, were 40 African Grey Parrots, their

beaks bound with tape. The smuggler, whose name was passed to the authorities, reportedly declared to Customs officers that, because controls in Italy were more stringent than before, he would pass through Switzerland on his next trip, where he has never before been stopped. The birds are being cared for at a rescue centre. TRAFFIC Europe-Italy

NETHERLANDS

On 22 June 1993, Customs officers at Schiphol airport arrested a Nigerian, in transit to Istanbul, who was transporting 33 young African Grey Parrots in his luggage. The birds were contained in small cages, between 5 and 6 to a cage; their beaks had been taped. 4 of the birds were dead on arrival; another specimen was in poor condition. Those that survived are being cared for by Avifauna Bird Park. TRAFFIC Europe-Netherlands.

Concern over Exports

Concern over Exports of African Grey Parrots from Cote D'Ivoire

The CITES Secretariat recommends that no export permits accompanying African Grey Parrots *Psittacus erithacus* from Cote d'Ivoire, a non-Party, be accepted as valid. The recommendation relates to the subspecies *Psittacus erithacus timneh* and *Psittacus erithacus erithacus*.

The Secretariat expressed its concern in April 1992 to the Direction de la Protection de la Nature et des Parcs Nationaux in Cote d'Ivoire about the large numbers of *P.e erithacus* that were being exported from that country, many of which are thought to originate in Ghana (which bans the export of African Grey Parrots) and other countries. Reports to the CITES Secretariat and the Government of Ghana, in October 1992 and March 1993 respectively, substantiate the belief that there is an illegal trade in African Greys from Ghana and out of Cote d'Ivoire. Although the Secretariat recommended that Cote d'Ivoire suspend exports of African Greys pending population surveys of the bird, no trade suspension has been ordered by the Government of Cote d'Ivoire.

The recommendation to all Parties will remain in force until the Secretariat is satisfied that wild populations of African Greys in that country have been surveyed and a management plan for sustainable international trade based on these surveys, instituted. CITES Secretariat, Notification to the Parties No. 746. 7 May 1993

TIME TO RENEW 'THE HYACINTH FUND'

It's three years since we launched "The Hyacinth Fund" with the aim of furthering research into the blue macaws. With the funds raised we were able to support much of the innovative work of Charlie Munn and Carlos Yamashita in the Pantanal of Brazil. The value of providing artificial nest boxes was demonstrated by them, and this has led to further activity of this kind, both in Brazil and elsewhere in parrot habitats.

Some of the Hyacinth Fund was used to start up work on behalf of Lear's Macaw, and that particular account is now empty. (As reported in 'PsittaScene', however, our 'Palm for a Parrot' Lear's Macaw campaign has found support from many individuals and institutions, notably The People's Trust for Endangered Species.)

The Trust would like to press ahead with new population studies of the Hyacinth Macaw, and in addition would like to raise funds to help the on-going work of a young Brazilian field biologist, Neiva Guedes. Neiva has now finished her thesis on the reproductive behaviour of the Hyacinth Macaw, but intends to continue her field work if funding can be found.

So please may I appeal to the generosity of our members to help refill 'The Hyacinth Fund'? There is much more that needs to be done to try to ensure that these wonderful birds continue to exist in the wild.

There are three ways to help: first, you could buy one of our Pantanal Hyacinth T-shirts for £13.50 or \$20 including postage; second, you could order our Hyacinth limited edition print 'The noblest of them all' for the special price of £40 or \$60 inc. postage, or you could simply make a donation specifically to 'The Hyacinth Fund'.

There follows a summary of Neiva Guedes' thesis.

REPRODUCTIVE BIOLOGY OF HYACINTH MACAWS

(*Anodorhynchus hyacinthinus*)

In the Pantanal - MS, Brazil.

By Neiva Maria Robaldo Guedes

Advisor: Prof. Alvaro Fernando de Almeida

Summary:

It is impossible to know the size and original distribution of the population of *Anodorhynchus hyacinthinus*, but it is known that it was an abundant species at the beginning of the century. Nowadays it is threatened by extinction throughout its habitat and the latest estimates report the existence of about 3,000 individuals in nature.

This work was conducted from January 1991 to

March 1993 in 11 ranches of about 250,000 ha in the Nhecolandia region of the Pantanal. Its main aims were: 1) to locate, measure and mark nests of hyacinth macaws; 2) to study some aspects of the reproductive biology; 3) to understand the habitat selection for feeding and nesting; 4) to look for management alternatives for the conservation of the species.

Of the 94 nests identified 95% were found in only one tree species, "manduvi" (*Sterculia striata*), which has a soft heart and is, thus, prone to the formation of hollows. Hyacinth macaws apparently do not select nests with standardized characteristics, such as shape and size of hollows. However they prefer open sites on the edge of mountain ridges or copses.

In nature Hyacinth macaws lay asynchronously 1 to 3 eggs, 2 on the average. Egg incubation is done by the female which stays in the nest most of the time and is fed by the male. The incubation period varies from 28 to 30 days and the rate of hatching is 90%. The chicks are born weighing, on the average, 31.6g and measuring 82.7mm long. However, they grow and increase weight rapidly. They stay in the nest for about 107 days and when they fledge they are still being fed by the parents. There is a predation of 40% of the eggs, but the rate of survival of the chicks varies from 75% to 83%. The reproductive success during the two years was 1.25 chicks per pair.

Hyacinth macaws proved to be one of the most specialized birds in their feeding habits. Foraging is based on nuts from two palm species: "bocaiuva" (*Acrocomia totai*) and "acuri" (*Scheelea phalerata*). During most of the year foraging is dependent on acuri which is highly abundant (density of 183.4 acuri/ha in some areas) and produces fruit throughout the year.

The pairs of Hyacinth macaws showed high conspicuousness, sedentariness and a certain degree of fidelity to the nesting sites. Non-reproductive individuals showed a high degree of socialization and flock formation, both in the foraging sites and in the roosts, the latter apparently functioning as veritable "information exchange centers".

The availability of hollows big enough for the size of macaws is low and, furthermore, there is competition with other species for the existing nests. This factor, in addition to the destruction of potential nests by deforestation or burning, may be limiting the increase of the population in the Pantanal area. For this reason some proposals concerning the management of nests have been made, in addition to others that may contribute to the conservation of the species in nature.

Attend the Event of the Year! IAS Convention, January 13-16, 1994 West Palm Beach, Florida.

Our 1st annual convention was a tremendous success! Participants, speakers and vendors thoroughly enjoyed sharing experiences and knowledge. The camaraderie at our Vegas Nite auction contributed to our raising and distributing nineteen thousand dollars to Avian Research and Conservation.

Confirmed international speakers include:

Mrs. Rosemary Low, Gran Canaria, Spain.

Mr. John Stoddley, U.K.

Dr. Carlos Yamashita, Brazil

Speakers from the USA include:

Dr. U.S. Seal - Captive Breeding Specialist Group

Mrs. Joanne Abramson - Raintree Macaws

Dr. Keven Flammer - North Carolina State U.

Dr. Hannis L. Stoddard - AVID

Randal Bure, Ph.D - Kaytee Products

Mrs. Katherine Muser - Everglades Aviaries

Miami Parrot Jungle Staff

Dr. Susan Clubb - Parrot Jungle

Mr. Michael Masie - Pretty Bird

Mr. Marc Valentine - Avian Genetics

Mr. John Goss - Inflight Aviaries

Dr. Branson Ritchie - University of Georgia

Dr. Amy Worrell - Rolling Oak Aviaries

For registration contact:

Luanne Porter on (USA) 901.872.7612.

For hotel rooms contact: Palm Beach Airport Hilton Reservations (407) 684-9400 ext. 3040. Room rate \$60.00 a night plus tax. Donors and vendors, please contact Phyllis Martin, 10101-A Tucker Jones Rd, Riverview, FL33569, (813) 677-8904.

Exclusive new T-shirt for the World Parrot Trust

Through the generosity of Firefly Studios, the Trust has just received this fabulously colourful T-shirt (and sweatshirt) design for its exclusive use. It features seven endangered parrots which have been helped in their fight for survival by The World Parrot Trust.

If you have thought earlier Trust shirt designs too sincere,

this could be what you've been waiting for. The price is £10.95 each for the T-shirt, plus £2.55 for post and packing to anywhere - a total of £13.50 (US \$20). Sweatshirts are £16.95 plus £2.55 p & p, a total of £19.50 (US \$29). Please state size required: S, M, L, XL. Send orders to the UK address on the back page.



Vincie Express on the high seas

As we go to press, the third Caribbean conservation bus is on board a Geestline ship, being carried free of charge to the wonderful island of St. Vincent in the Lesser Antilles.

Like the others, sent to St. Lucia and Dominica, this bus has been developed in conjunction with RARE Centre. It contains exhibits which demonstrate the importance

of preserving the forests on the island, both for the sake of the fabulously beautiful endemic island parrot, and for the sake of the human inhabitants. We expect to be present at the formal handing over ceremony on St. Vincent, and will hope to have pictures for the next issue of 'Psittascene'.



This is just part of the amazing paint job done by Cornish artist Philip Craig on the new St. Vincent bus.

Parrot Studbooks - Time for Action!

Since our August 1990 issue we have published a list of Parrot Studbooks, and asked holders of Appendix 1 species to contact the studbook coordinators and register their birds. These lists are a vital element in effective, long term conservation. Most zoos and bird parks cooperate wholeheartedly, most private aviculturists do not. In the Trust's opinion, parrot breeders who do not enter their birds on the appropriate studbooks should not expect to be taken seriously when they claim to be contributing to parrot conservation. They should also bear in mind that (a) the studbook coordinator may be able to help them pair up birds, and (b)

holders' addresses are kept entirely confidential within the studbook system. We now have three categories of studbook: Regional, EEP (European Endangered Species Programme), and International. In the following updated list we have marked these R,E, and I. Please let us have any corrections, or additions of officially recognised studbooks. For any queries on EEP Studbooks, please contact Dr. Koen Brouwer, who acts as conservation coordinator for all members of the Dutch Zoo Federation.

Write to him at:
Amsterdam Zoo,
Postbus 20164
1000 HD Amsterdam
The Netherlands

Parrot Studbook Coordinators

BLUE-EYED COCKATOO
(*Cacatua ophthalmica*) *R*
PALM COCKATOO
(*Probosciger aterrimus*) E*

Dr. Roger Wilkinson, Chester Zoo,
Upton-by-Chester, Cheshire.
CH2 1LH United Kingdom

CITRON-CRESTED COCKATOO
(*Cacatua sulphurea citrinocristata*) E*

David Woolcock, Paradise Park
Hayle, Cornwall. TR27 4HY
United Kingdom

MOLUCCAN COCKATOO
(*Cacatua moluccensis*) E*

David Field, Royal Zoological
Society of Scotland, Murrayfield,
Edinburgh. EH12 6TS Scotland

RED-VENTED COCKATOO
(*Cacatua haematuropygia*) *E*

Marc Boussekey, Espace
Zoologique, St. Martin-la-Plaine
42800 Rive de Gier, France.

HYACINTHINE MACAW
(*Anodorhynchus hyacinthinus*) *E*

Dr. Hubert Lucker, Zoologischer
Garten Dresden, Tiergartenstrasse 1
D-8020 Dresden, Germany.

HYACINTHINE MACAW
(*Anodorhynchus hyacinthinus*) *R*

Colin Bath, Paignton Zoological &
Botanical Gardens, Totnes Road,
Paignton, Devon.

GOLDEN CONURE
(*Aratinga guarouba*) *R*

C/O The Parrot Society
108b Fenlake Road, Bedford.
MK42 0EU

GOLDEN CONURE
(*Aratinga guarouba*) *I*

Alan Lieberman, San Diego Zoo,
PO Box 551, San Diego,
California, 9221190551 USA.

CUBAN AMAZON
(*Amazona leucocephala*)
LILACINE AMAZON
(*Amazona autumnalis lilacina*) *R,E*

Mark Pilgrim, Chester Zoo,
Upton by Chester, Cheshire.
CH2 1LH United Kingdom

GOFFIN'S COCKATOO
(*Cacatua goffini*) *R*

SCARLET MACAW

(*Ara macao*) *R*

BUFFON'S MACAW

(*Ara ambigua*) *R*

RED-FRONTED MACAW

(*Ara rubrogenys*) *R*

David Woolcock, Paradise Park
Hayle, Cornwall. TR27 4HY
United Kingdom

THICK-BILLED PARROT

(*Rhynchopsitta*

pachyrhyncha) *R*

David Jeggo,
Jersey Wildlife Preservation Trust
Les Augres Manor, Trinity,
Jersey, Channel Islands.

BLUE-STREAKED LORY
(*Eos reticulata*) *R*

C/O The Parrot Society
108b Fenlake Road
Bedford. MK42 0EU

For all Amazon Studbooks please
contact:

The Amazona Society
C/O Mrs J. B. Perry, Ways Green
House, Queensway, Winsford,
Cheshire. CW7 1BH

For other Lory Studbooks
please contact:-
Trevor Buckell 0980 622573

LETTERS TO THE EDITOR

Members write

Brehm Fund South Seas Expedition

Dear Ms Low

In "PsittaScene" 4/4 (1992) you requested new information on the "World Parrot Trust league table of endangered parrots". I was surprised to find no Pacific island species in this list, although at least 4 species have populations of less than 2000 individuals.

- Uvea Horned Parakeet (*Eunymphicus cornutus uveaensis*), about 200 in the wild and 30 in captivity.

- Ultramarine Lorikeet (*Vini ultramarina*), 800 to 1000 in the wild.

- Henderson Island Lorikeet (*Vini stephensi*), 500 to 1000 in the wild.

- Scarlet-breasted Lorikeet (*Vini kuhlii*), 1500 to 2000 in the wild, 1 in captivity.

You also included subspecies in this list. The Norfolk Island Parakeet (*Cyanoramphus novaezelandiae cookii*) has only about 40 individuals, about half of which are in captivity. The Forbes' Parakeet (*Cyanoramphus auriceps forbesi*) from the Chatham Islands numbers about 350 individuals. The Parrot Action Plan, soon to be published by BirdLife International (formerly ICBP), provides details about the status of all parrot species, and many subspecies. The "League table of endangered parrots" would, based on this document, have to be completely revised.

Sincerely Yours

Dr Dieter R. Rinke (Project Director)

Dr. Rinke is quite correct, and when the parrot Action Plan is available we may print a revised 'League Table'. Ed.

8651 Britannia Court
Dallas, TX 75243
USA

Dear Ms. Low,

Congratulations on the beautiful, color issue of Psittascene! I always enjoy reading all the wonderful things the World Parrot Trust is doing on behalf of these gorgeous creatures, and now to be able to see them in their glorious colors is even better. I really admire your organization because you are actually out there in the field, doing things to benefit parrots, not just talking and asking for contributions. That makes me

much more willing to make contributions! Please find enclosed \$20 to go towards Dr. Neto's study of the Red-tailed Amazon. I thought my dusky Pionus was the most beautiful bird I'd ever seen, but your photo of the Red-tailed Amazon took my breath away. I know this is a small sum, but hopefully I can add to it. Please keep us informed on this beautiful bird. Thank you again for your hard work and lovely magazine.

Candy Tooley

CREWE
Cheshire

Dear Sir

I have recently been researching the history of the Oakfield Zoological Garden, near Crewe, which existed in the late 1920s/early 1930s under the ownership of a Dr Willie English. Although his speciality were marmosets and tamarins (he bred Golden Lion tamarin four times in 1931/32) he also had a significant collection of parrots, including "five varieties of macaws", and *Amazona aestiva/festiva/ochrocephala/autumnalis/diadema/ventralis* and *barbadensis*, along with Dusky Parrot, cockatoos, lorries etc. A number of photographs taken there have come to light, and I enclose copies of those which feature parrots.

Picture 1: Hyacinth Macaw, and budgerigar.

Picture 2: From left to right, Hyacinth Macaw? Greater Sulphur-Crested Cockatoo? Ara macao?

And on the right, could this be Lear's Macaw? It seems very like the Lear's shown in Rutgers' Handbook of Foreign Birds (Blandford, 1965) especially in the shape of the yellow patch by the beak; also the relatively small patch around the eye. One gentleman who has seen the photograph (and who has kept a number of macaws himself) suggested Glaucous Macaw - but I'm not entirely sure why! Your comments on any of the above would be very much appreciated, as I am in the process of writing a book on Oakfield's history, and wouldn't want to get the psittacine facts wrong.

Yours sincerely

Gwyn Griffiths

P.S. We think Hayle's parrot collection is superb!



Editor's note:

Much fascinating correspondence reaches our office these days, but this is particularly intriguing. The shot of the budgerigar on the back of the Hyacinth Macaw has a lot of charm. Clearly they are friends, but does a pair bond exist? If so, who feeds who, and how? Can any reader report any similar current relationships between disproportionate psittacine soulmates? If so, how about a picture for "PsittaScene"?

The shot of the four assorted parrots raises a few questions. Mr. Griffiths speculates that No. 3 is a Scarlet

Macaw, but we think it is a Blue and Gold Macaw, due to the facial lines and the dark bill. But bird number 4 is apparently a Lear's Macaw, although it is possible it could be a Glaucous; it certainly seems small in relation to the Hyacinth Macaw on the left. However, why is the Blue and Gold macaw so small? It seems about the size of the Lear's but "Parrots of the World" by Forshaw and Cooper gives the following lengths for these birds: Hyacinth 100cm, Blue and Gold 86cm, Lear's 75cm, Glaucous 72cm. If anyone has any answers to these questions, please write.

The objective of the Trust is to promote the survival of all parrot species and the welfare of individual birds. The Trust is a very active body which constantly pursues policies to ensure the general public world-wide are fully informed of developments relating to parrot conservation. The aim is also to persuade parrot keepers to care for their birds in the best possible way, and to encourage responsible aviculture.

The World Parrot Trust

The work of the Trust: a brief review

Hyacinth Fund

This special fund, launched in 1990, has provided over £13,500 to help conservation measures for both the Hyacinth and Lear's Macaw. Current work focuses on our Palm for a Parrot campaign.



Caribbean Buses

The 'Jacquot Express' was sent to St. Lucia in 1991, the 'Sisserou Express' was sent to Dominica in 1992. We are now about to send the 'Vincie Express' to St. Vincent. This unique 'conservation bus' scheme is remarkable value for money. Each bus costs around £25,000.



Indonesian Parrots

Many Indonesian parrots are under threat and with the particular help of our Benelux Chapter we are doing all we can. Recently we achieved the release of over 300 Goffin's Cockatoos held by traders and we are supporting an ICBP survey of Yamdena.



Amazons In Brazil

The Trust has been invited by the Brazilian Government to help with the conservation of all its parrot species. We have recently contributed towards a new survey to establish the status in the wild of two Amazon parrots: *A. pretrei* and *A. vinacea*.



Black Cockatoos in Australia

The Trust provides half the cost of a four year programme to assist the survival of an endangered sub-species of this spectacular cockatoo in Victoria. Cost: £8,000.



Echo Parakeet

This is the world's rarest parrot, as only about 17 still exist on Mauritius. The Trust has provided continuous support for this species, including supplying a four-wheel drive vehicle, a computer and other equipment, and helping with training and diets. Our total investment is over £20,000.



Other Activities

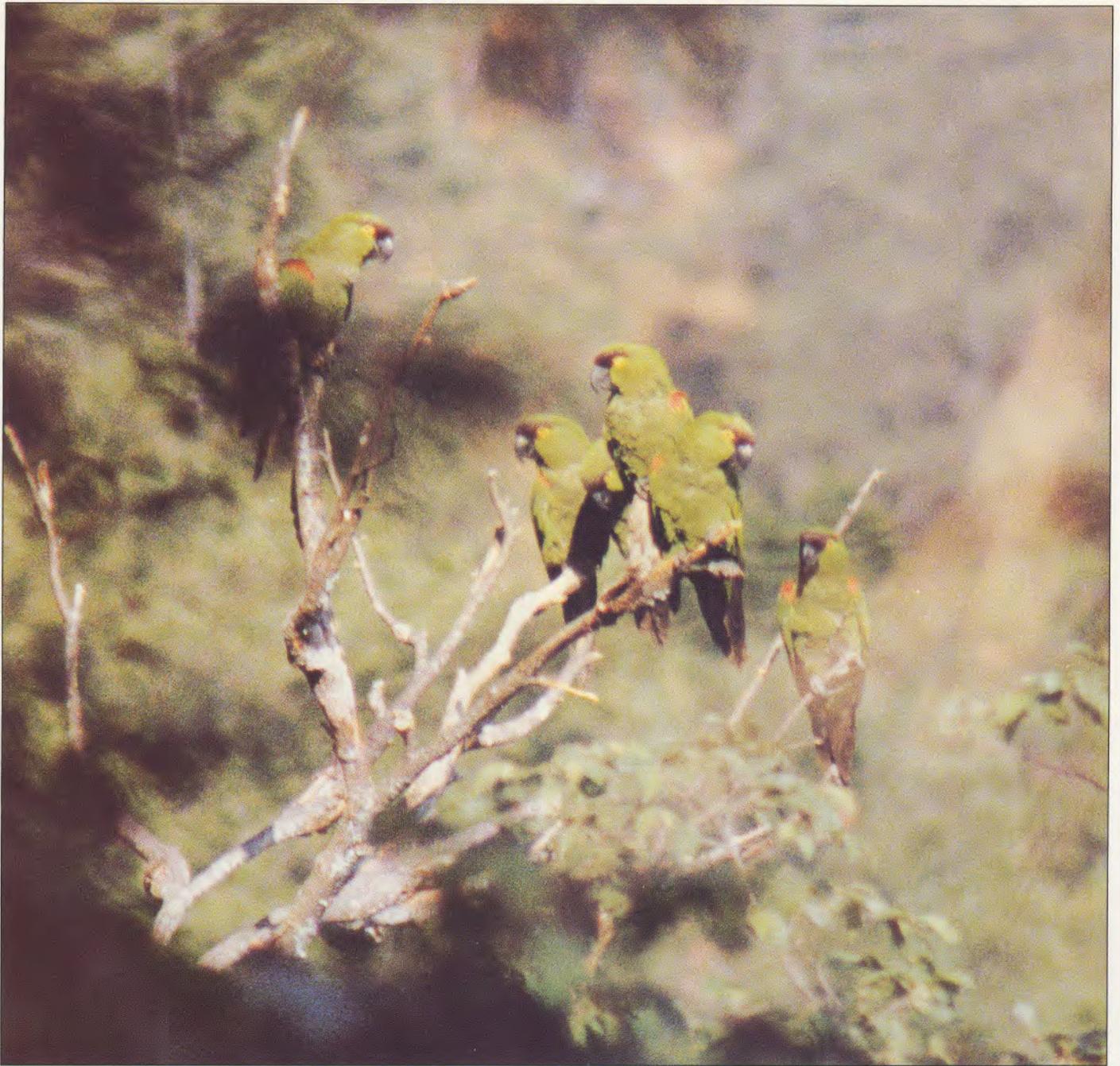
The Trust has supported and attended parrot conservation workshops and conventions in Brazil, Paraguay, Honduras, Mexico, Holland, Spain, UK and the USA. It has contributed towards hurricane relief for aviculturists in southern Florida. It is researching ways to improve the conditions in which parrots are kept. Through its 'Parrot Bureau' it seeks to inform the public about parrot conservation and welfare. Principally through the publication, 'PsittaScene', it sets out to inform parrot aviculturists and others about developments in conservation. The World Parrot Trust aims to represent the interests of enlightened, responsible aviculture in its contacts with national and international bodies and authorities. In all its work, the interests of the parrots themselves come first.



Help save the parrots of the world

Please join the Trust, or encourage friends to join. Subscription rates are: UK and Europe (single) £15, (family) £20; Fellow (Life Member) £250/US \$400; Overseas Airmail £20/US \$30; Overseas Surface Mail £15/US \$25. Please send your cheque or credit card details to: The World Parrot Trust, Glanmor House, Hayle, Cornwall TR27 4Y, UK. Regd. UK Charity No. 800944 Tel: (0736) 753365 Fax: (0736) 756438

PARROTS IN THE WILD



MAROON-FRONTED PARROT *Rhynchopsitta terrisi*

This shot deserves only a 'D' for sharpness, but I claim an 'A' for effort. I had to climb half way up one of the Sierra Madre Oriental mountains near Monterrey to have this opportunity of photographing Mexico's rarest parrot. For three hours we watched about ten pairs swooping around the steep forest and precipitous cliff face known as 'El Condomino'. The swooshing sound of their wings reflecting back from the cliff is my keenest memory of this great experience. Sorry about the camera shake. *Michael Reynolds*

We intend to continue this series of 'Parrots in the Wild', and if any reader can offer us a high quality shot that might be suitable, please get in touch.